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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,545

02/08/2006

Ugenio Ferreira Da Silva Neto

DASI3002/FJD

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7590

06/02/2008

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EXAMINER

WRIGHT, BRYAN F

ART UNIT

PAPER NUMBER

2131

MAIL DATE

DELIVERY MODE

06/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,545	Applicant(s) DA SILVA NETO, UGENIO FERREIRA	
	Examiner BRYAN WRIGHT	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/3/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action in response to application February 8, 2006. Claims (12-22) are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12 -15, 17, 18, 21, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Galasso (US Patent No. 6,598,165).

3. As to claim 12, Galasso teaches a **method providing protection from unauthorized access to a field device connected over a data bus with a control unit, comprising the steps of:**

storing in the field device a security program, which performs an authorization examination in the case of an accessing of the field device over the data bus (i.e., Galasso teaches security firmware for which prevents the modifying of content base on proper authorization [col. 1, lines 50-57]).

4. As to claim 13, Galasso teaches a **method where: the security program is part of a function block** [fig. 1].

5. As to claim 14, Galasso teaches a **method where: the security program is part of firmware stored in the field device** (i.e., microprocessor) (i.e., Galasso teaches firmware to protect against the overlaying of the microprocessor contents [col. 1, lines 50-57]).

6. As to claim 15, Galasso teaches a **method where the security program includes a security key** (private key), **which is stored in the field device during configuration of the field device** (i.e., secure flash) (i.e., Galasso teaches a private key associated with security firmware stored in ROM during communication (e.g., transmitting/receiving) with the secure flash [col. 5, lines 50-60]).

7. As to claim 17, Galasso teaches a **method where the security key is created during installation of the field device** [col. 2, lines 36-43].

8. As to claim 18, Galasso teaches a **method where the security key** (e.g., private key) **is provided by the field device** (i.e., Galasso teaches a private key associated with security firmware stored in ROM of the secure flash [col. 5, lines 50-60]).

9. As to claim 21, Galasso teaches a **method where: the security key is stored only in the field device** [col. 5, lines 50-60].

10. As to claim 22, Galasso teaches a **method where: the field devices** (e.g., EEPROM) **are sensors, actuators, controllers, PLCs or gateways** [col. 3, lines 35-36].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Galasso in view of Moyer (US Patent No. 7,266,848 and Moyer hereinafter).

12. As to claim 16 the system disclosed by Galasso shows substantial features of the claimed invention (discussed in the paragraph above), it fails to disclose:

A method where: the security key is an at least 128-bit code.

However, these features are well known in the art and would have been an obvious modification of the system disclosed by Galasso as introduced by Moyer. Moyer discloses:

A method where: the security key is an at least 128-bit code (to provide a variable length security key capability [col. 3, lines 23-26]).

Therefore, given the teachings of Moyer, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage of modifying Galasso by employing the well known features of variable length security key above by Moyer, for which field device access authorization will be enhanced [col. 3, lines 23-26].

13. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galasso in view of Fueki (US Patent No. 2002/0166058).

14. As to claim 19, 20, the system disclosed by Galasso shows substantial features of the claimed invention (discussed in the paragraph above), it fails to disclose:

A method where: the security key is regularly renewed (claim 19).

A method where: the security key is renewed hourly (claim 20).

However, these features are well known in the art and would have been an obvious modification of the system disclosed by Galasso as introduced by Fueki. Fueki discloses:

A method where: the security key (i.e., encryption key) **is regularly renewed** (claim 19) (to provide the capability to update a security key at predetermined times [par. 13]).

A method where: the security key (i.e., encryption key) **is renewed hourly** (claim 20) (to provide the capability to update a security key at predetermined times [par. 13]).

Therefore, given the teachings of Fueki, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage of modifying Galasso by employing the well known features of updating a security key at a predetermined time disclosed above by Fueki, for which field device access authorization will be enhanced [par. 13].

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN WRIGHT whose telephone number is (571)270-3826. The examiner can normally be reached on 8:30 am - 5:30 pm Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AYAZ Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRYAN WRIGHT/

Examiner, Art Unit 2131

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2131